



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/707,058	11/06/2000	Otto Bach	5085-6	8298

7590 03/18/2003

Klaus P. Stoffel, Esq.
Ostrolenk, Faber, Gerb & Soffen
1180 Avenue of the Americas
New York, NY 10036-8403

EXAMINER

MCDONALD, RODNEY GLENN

ART UNIT	PAPER NUMBER
----------	--------------

1753

DATE MAILED: 03/18/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/707,058

Applicant(s)

Bach et al.

Examiner

Rodney McDonald

Art Unit

1753



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 28, 2003
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above, claim(s) 1-7, 11, and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3,4,6,7 6) ☐ Other:

Art Unit: 1753

DETAILED ACTION

Election/Restriction

1. Applicant's election of Group II Claims 8-10 in Paper No. 10 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP. § 818.03(a)).

Claim Rejections - 35 USC § 112

2. Claims 9 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 is indefinite because "a noble metal" is unclear because "a metal" encompasses "noble metals".

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor

Art Unit: 1753

and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boozenny et al. (U.S. Pat. 5,096,562).

Boozenny et al. teach *a cylinder 59 which includes as its outside surface 61 the target material desired for a particular sputtering process*. For example, if a silicon based compound is desired to be formed as a film on the surface of a glass substrate 55, the cylindrical surface is made of silicon with a small percentage of impurities in order to make the surface electrically conductive. An aluminum concentration of 2% has been found satisfactory for a silicon target. Other popular target materials used in various glass coating applications include zinc and titanium. Generally, any target material that it being used in planar magnetrons can be used with the rotating cathode being described. (Column 4 lines 37-49)

Alternate techniques of forming the target surface 61 include *casting the entire tube 59 from the target material*, or by coating a supporting tube of a suitable nonmagnetic material, such as brass, with an outside layer of target material through plasma spraying. (Column 4 lines 50-55)

The difference between Boozenny et al. and the present claims is where the casting is centrifugal casting.

Art Unit: 1753

Bentz et al. teach a method of *casting metal in the production of centrifugally cast tubes*. (See Abstract)

Bentz et al. teach casting of metal in a rotary mold or die of the kind which protection is provided simultaneously for the surface of the bath of metal and the space within the mould, prior to *casting*, by means of a controlled stream of liquefied inert gas which on the one hand is directed over the surface of the bath and which on the other hand is fed into the interior of the mould as it is driven in *rotation*. (Column 1 lines 5-15)

Centrifugal casting allows production of solidified layers of metal which are completely free from surface oxidation. (Column 2 lines 36-42)

The motivation for centrifugal casting is that it allows for the production of a layers of metal that is from surface oxidation. (Column 2 lines 36-42)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Boozenny et al. by utilizing centrifugal casting as taught by Bentz et al. because it allows for production of a tube that has no oxidation on its surface.

5. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boozenny et al. in view of Bentz et al. as applied to claim 8 above, and further in view of Hartig et al. (U.S. Pat. 5,403,458).

The differences not yet discussed is where the target is made of a metal and a noble metal and where the body is formed of silver.

Art Unit: 1753

Hartig et al. teach a cathodic target that may be planar, square, round or *cylindrical*. (Column 5 lines 54-55) Generally, cathode target are produced by several well known methods including extruding, *casting*, liquid metal spraying, hot isostatic spraying, electroplating or plasma spraying. (Column 5 lines 61-64)

Cathode target includes a layer of material 20 comprised of at least two components; a coating component and a dopant component. (Column 6 lines 11-16) As the coating component silicon, aluminum, their alloys and mixtures can be utilized. Other coating components include aluminum, bismuth, chromium, boron, germanium, tin, titanium, tungsten, vanadium, zinc, zirconium, and certain combinations or alloys thereof. (Column 6 lines 37-44)

The dopant component can include noble metals, highly oxidation resistant metals and elements which form conductive oxides and conductive nitrides. Metals such as *silver*, gold and platinum are highly unreactive, i.e., will, not typically form reaction products, but are themselves substantially electrically conductive. (Column 7 lines 5-12)

The motivation for providing a cathode of a metal and a noble metal where the noble metal is of silver is that it allows for protecting the anode. (Column 3 lines 1-30)

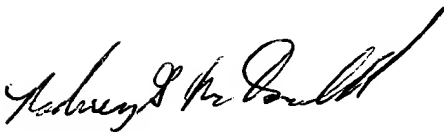
Therefore, it would have been obvious at the time the invention was made to have utilized a cathode of metal and a noble metal where the noble metal is silver as taught by Hartig et al. because it allows for protecting the anode.

Art Unit: 1753

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney McDonald whose telephone number is 703-308-3807. The examiner can normally be reached on M-Th from 8 to 5:30. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen, can be reached on (703) 308-3807. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 702-208-0661.



RODNEY G. MCDONALD
PRIMARY EXAMINER

RM

March 10, 2003